CAMERA ADAPTOR

CMA-D1/D1CE

REVISED-1

SPECIFICATIONS

DC OUT connector	12 V, total 1A
Operating temperature	0°C to 40°C (–32°F to +104°F)
Power requirements	Model for the United States and Canada: 120 V ac, 60 Hz Model for other countries: 100 V, 120 V, 220 V or 240 V ac (selectable), 50 Hz
Power consumption	25 W
Dimensions	Approx. 167 × 76 × 158 (w/h/d) ($6\frac{5}{8} \times 3 \times 6\frac{1}{4}$ inches)
Weight	Approx. 2.2 kg (4 lb 14 oz)
Accessory supplied	AC power cord x1

SONY®

SERVICE MANUAL

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

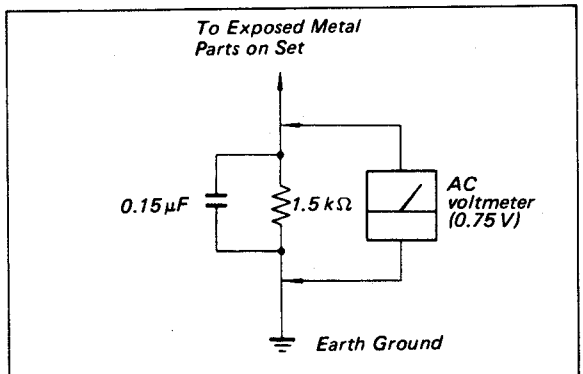
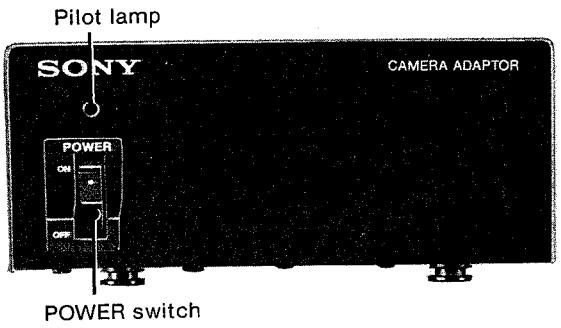


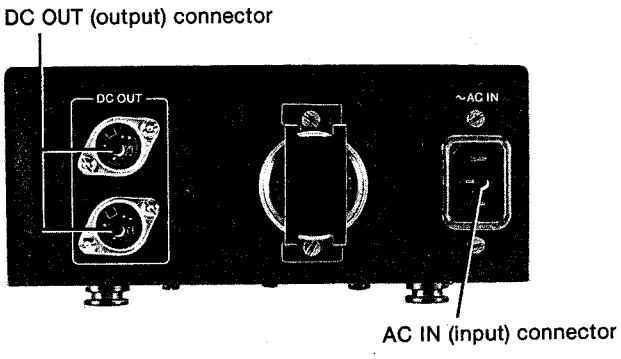
Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1
DESCRIPTION

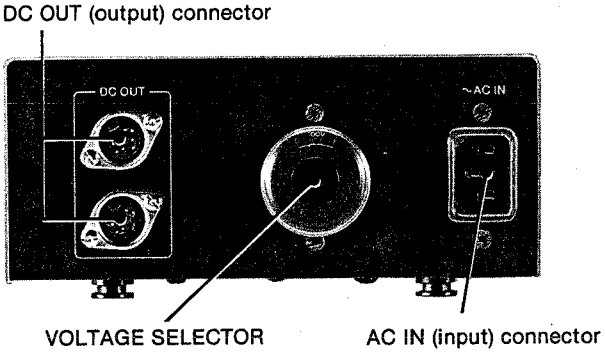
LOCATION OF PARTS



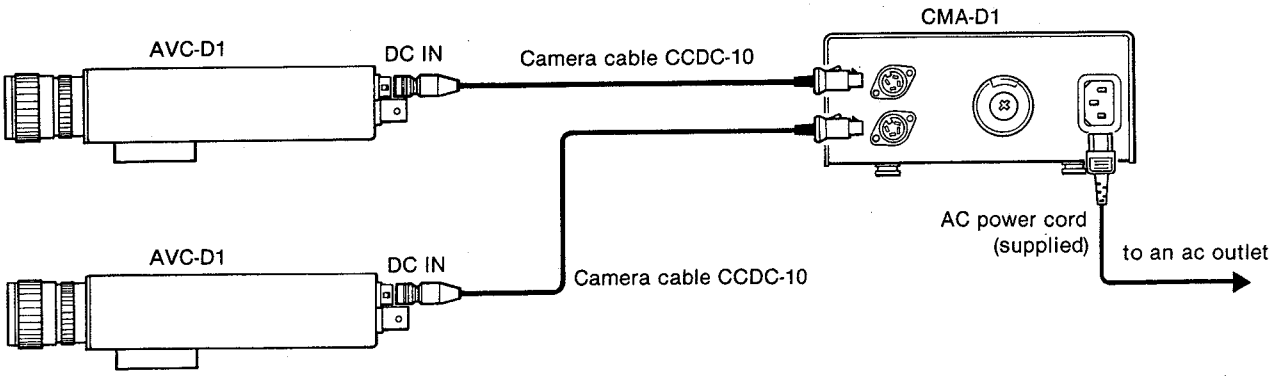
For the United States and Canada



For other countries



CONNECTIONS

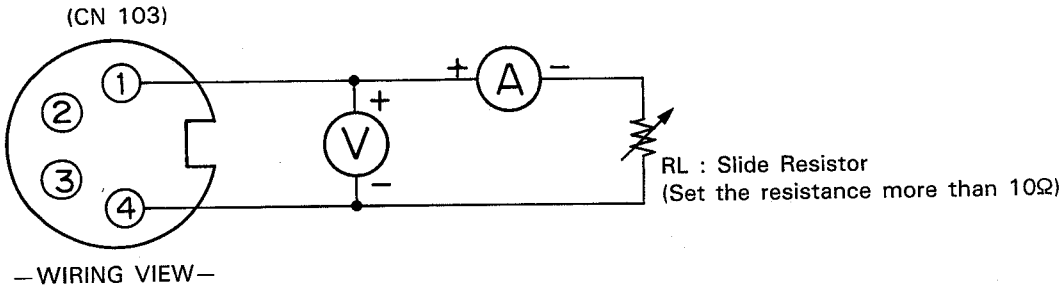


SECTION 2
ALIGNMENT

2-1. EQUIPMENT REQUIRED

- Slide Resistor (0 ∼ 20Ω, 2A)
- Ammeter (more than 2A)
- Voltmeter

2-2. CONNECTION



—WIRING VIEW—

2-3. ELECTRICAL ADJUSTMENT

2-3-1. Preparation

RV1 [LIMIT 1]
RV3 [LIMIT 2]
} PS-73 board → Fully clockwise ↻ (rear view)

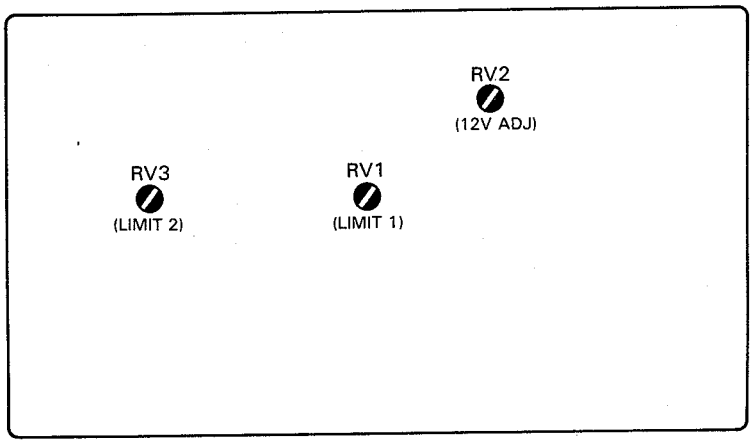
2-3-2. + 12V Voltage Adjustment

Adj. point : ◐ RV2 [12V ADJ] /PS-73 board

Spec. : V = +12.0 $^{+0.2}_{-0}$ Vdc

2-3-2. Current Limiter Adjustment

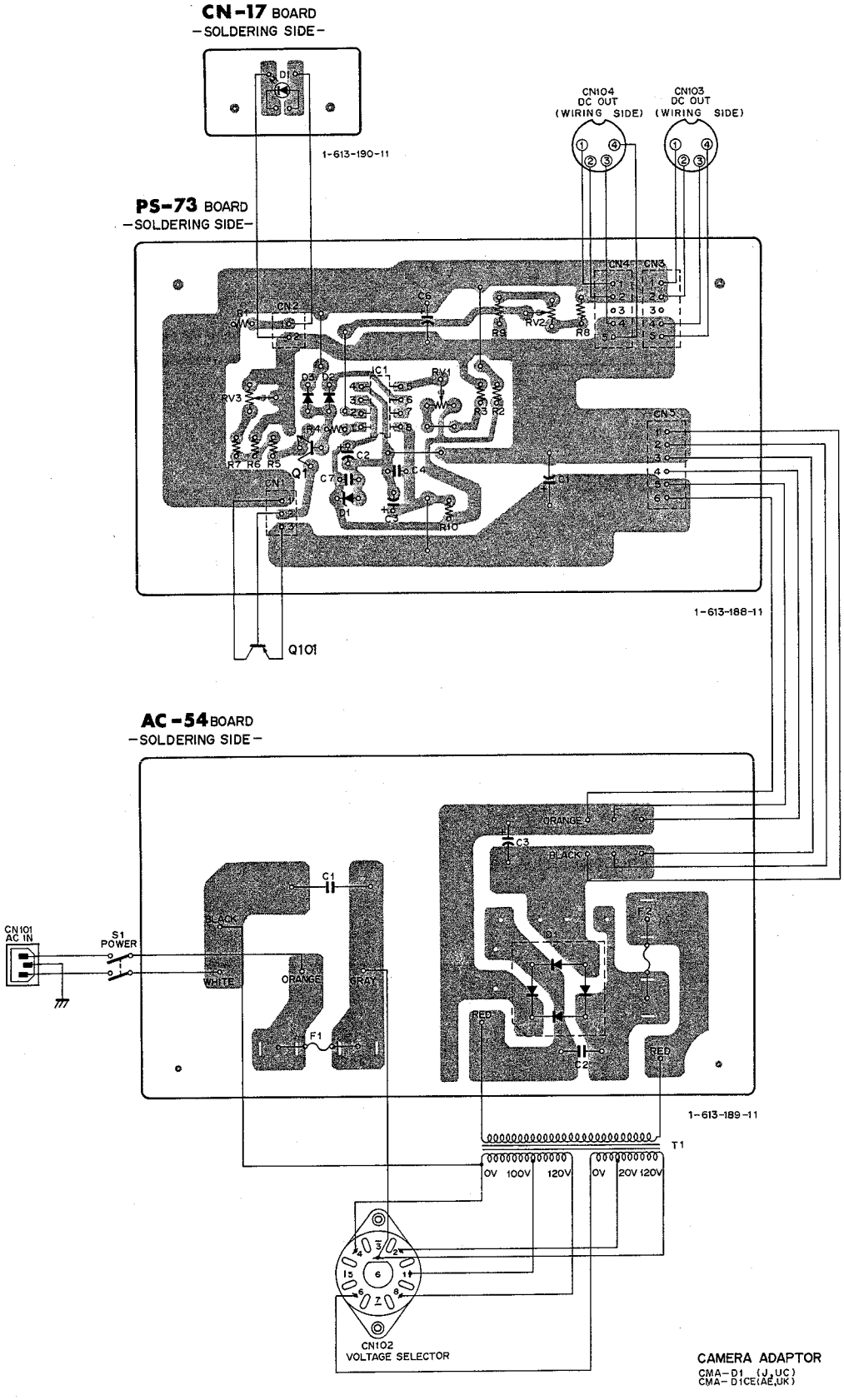
Adjust. : 1. Adjust the RL (slide resistor) so that the electric current is 1.7A.
2. Adjust the ◐ RV1 [LIMIT 1] /PS-73 board so that the electric current is 1.6±0.05A.
When the electric current is not 1.6A even if the ◐ RV1 [LIMIT 1] is turned fully, set the ◐ RV1 [LIMIT 1] counterclockwise ↺, and adjust the ◐ RV3 [LIMIT 2] so that the electric current is 1.6±0.05A.



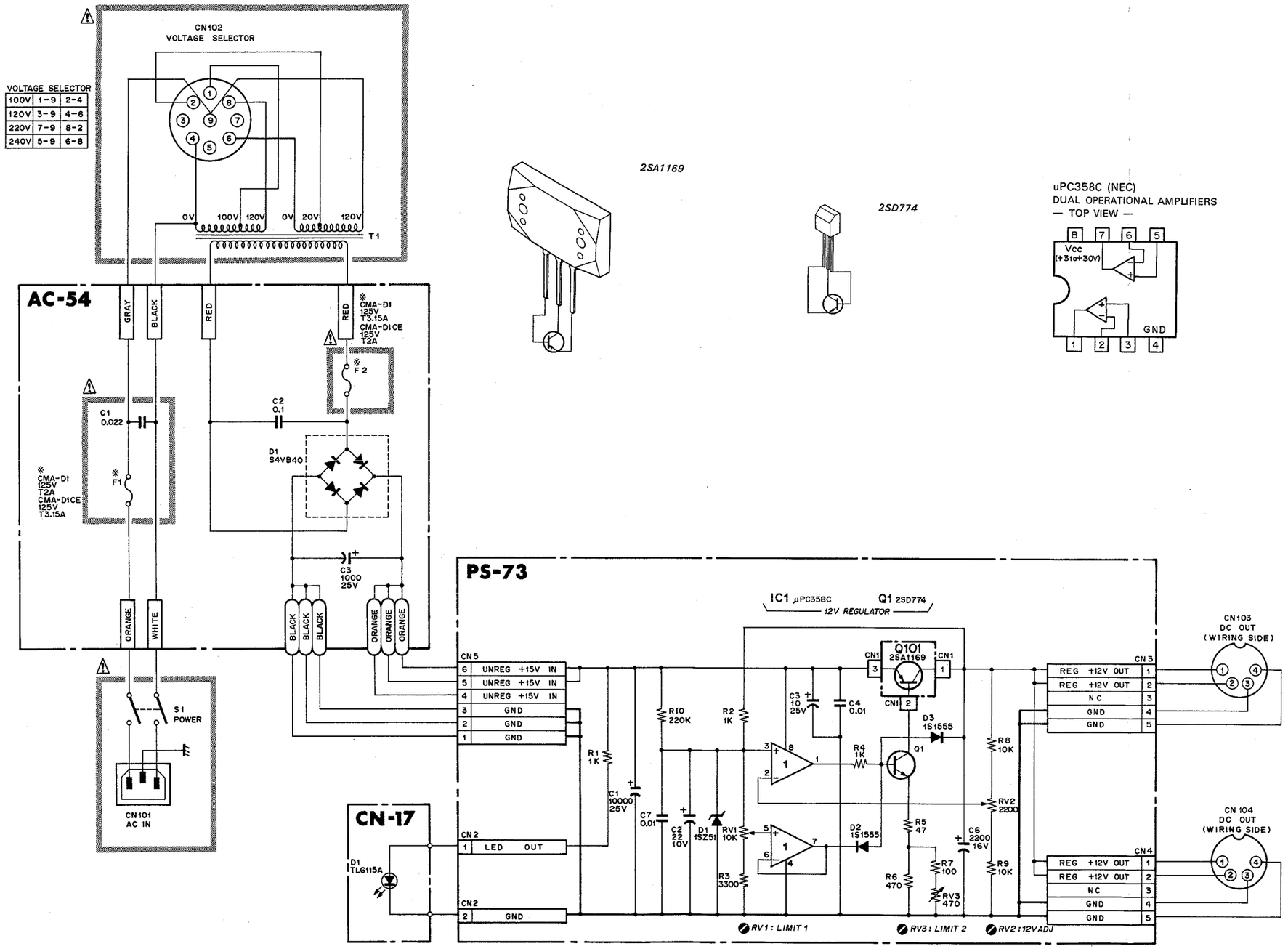
PS-73 board (Soldering side)

SECTION 3
DIAGRAM

MOUNTING DIAGRAM



SCHEMATIC DIAGRAM



CAMERA ADAPTOR

CMA-D1 (UC, J)
CMA-D1CE (AE, UK)

SECTION 4
SPARE PARTS

4-1. PARTS INFORMATION

1. **Safety Related Component Warning**

   Components identified by shading marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation. Replace these components with Sony parts whose parts numbers appear as shown in this manual or in service bulletins and service manual supplements published by Sony.

2. Replacement Parts supplied from Sony Parts Center will somtimes have different shape and outside view from the parts which actually in use. This is due to ''accommodating the improved parts and/or engineering changes'' or ''standardization of genuine parts.''
   - This manual's exploded views and electrical spare parts list are indicating the parts numbers of ''the standardized genuine parts at present''.
   - Regarding engineering parts changes in our engineering department, refer Sony service bulletins and service manual supplements.

3. **Printed Components in Bold-Face type** on the exploded views and electrical spare parts list are normally stocked for replacement purposes. The remaining parts are not normally required for routine service work. Orders for parts not shown in Bold-Face type will be processed, but allow for additional delivery time.

4. Item with no part number and/or no description are not stocked because they are seldom required for routine service.

5. **Abbreviation**

Ref. No.	DESCRIPTION	Ref. No.	DESCRIPTION	Ref. No.	DESCRIPTION
C	CAPACITOR	IC	IC	S	SWITCH
CN	CONNECTOR	Q	TRANSISTOR	T	TRANSFORMER
D	DIODE	R	RESISTOR		
F	FUSE	RV	VARIABLE RESISTOR		

All capacitors are in micro farads unless otherwise specified.
All inductors are in micro henries unless otherwise specified.
All resistors are in ohms.

SCREW
TOTSU TYPE

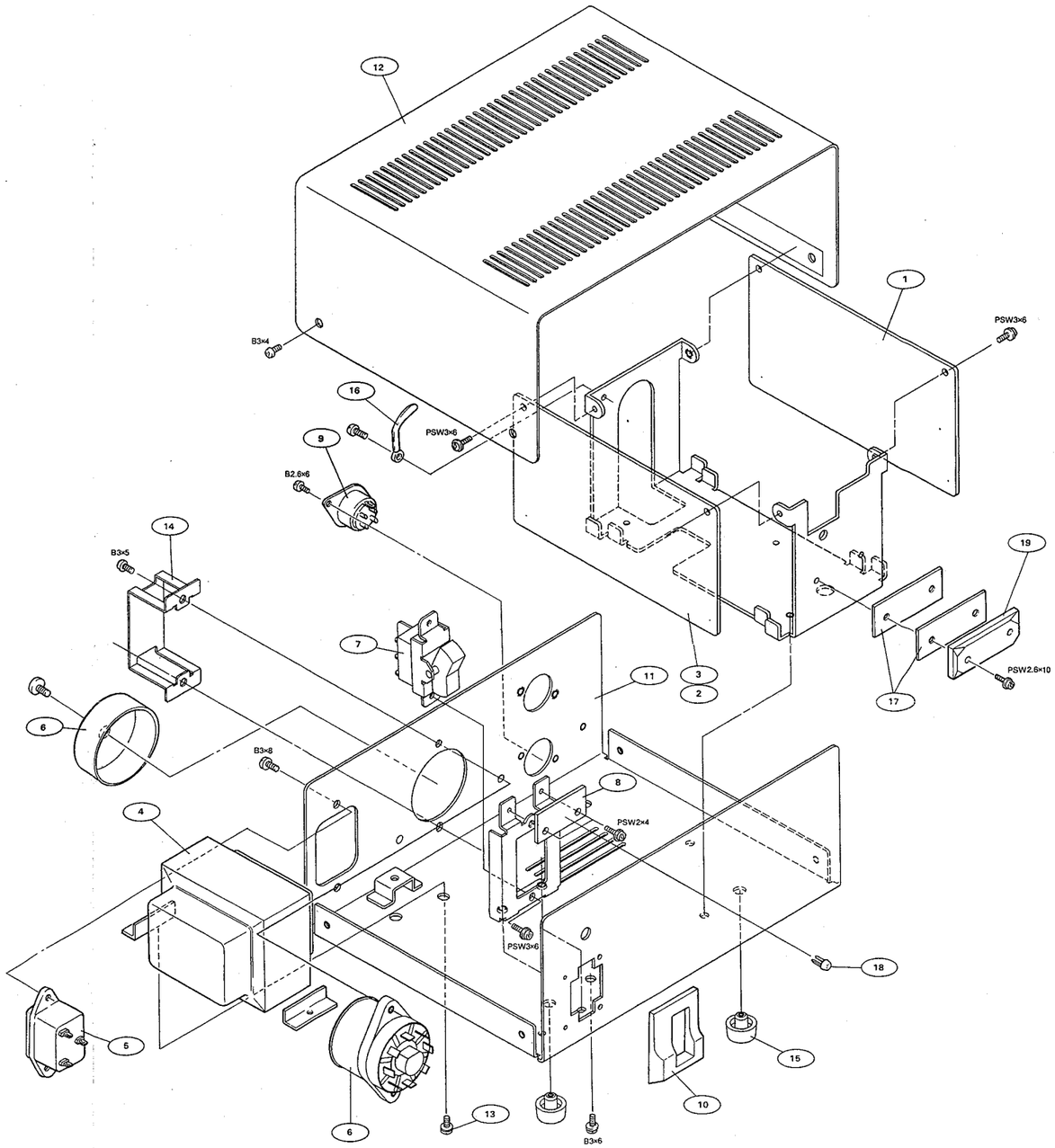
	B	PSW
2.6 × 5	7-621-912-38	
3 × 6	7-686-624-04	7-686-527-01
3 × 8		7-686-528-01
3 × 12		7-686-530-01
4 × 8	7-686-635-09	7-686-548-01

WASHER

W.3 (S)	7-688-003-01
W.4 (M)	7-688-004-12

(S) : SMALL TYPE
(M): MIDDLE TYPE

4-2. EXPLODED VIEW



No.	Parts No.	Description
1	A-7513-100-A	MOUNTED CIRCUIT BOARD "PS-73"
⚠ 2	A-7520-182-A	MOUNTED CIRCUIT BOARD "AC-54" (FOR CMA-D1)
⚠ 3	A-7520-183-A	MOUNTED CIRCUIT BOARD "AC-54" (FOR CMA-D1CE)
⚠ 4	**1-447-933-11**	**TRANSFORMER, POWER (T1)**
⚠ 5	**1-509-546-00**	**3P INLET "AC IN"**
⚠ 6	**1-526-572-00**	**SOCKET, POWER VOLTAGE SELSCT (CN102)**
⚠ 7	**1-553-515-00**	**SWITCH, ROCKER "POWER" (FOR CMA-D1)**
	1-553-159-00	**SWITCH, ROCKER "POWER" (FOR CMA-D1CE)**
8	1-613-190-11	PRITED CIRCUIT BOARD "CN-17"
9	**1-935-167-12**	**RECEPTACLE, 4P WITH HARNESS "DC OUT" (CN103 CN104)**
10	**2-251-642-02**	**GUARD, POWER SWITCH**

No.	Parts No.	Description
11	2-376-414-02	CHASSIS, AC
12	2-376-415-01	COVER, AC
13	**2-382-129-11**	**SCREW (M3x5)**
14	2-385-514-11	COVER, V.S
15	**3-670-155-11**	**LEG**
16	**3-703-150-11**	**CLAMP**
17	**4-885-901-21**	**SHEET, RADIATION**
18	**8-719-820-15**	**DIODE TLG115A**
19	**8-729-316-91**	**TRANSISTOR 2SA1169 (Q101)**

4-3. ELECTRICAL PARTS LIST

AC-54 BOARD

No.	Parts No.	Description
⚠	A-7520-182-A	MOUNTED CIRCUIT BOARD "AC-54" (FOR CMA-D1)
⚠	A-7520-183-A	MOUNTED CIRCUIT BOARD "AC-54" (FOR CMA-D1CE)
	1-533-131-00	HOLDER, FUSE
⚠ C1	1-136-211-00	POLYESTER 0.022 20% 250V
C2	1-108-389-00	MYLAR 0.1 10% 100V
C3	1-124-457-00	ELECT 1000 20% 25V
D1	8-719-504-40	S4VB40
⚠ F1	1-532-743-11	TIME-LAG 2A 125V (FOR CMA-D1)
⚠ F1	1-532-237-00	TIME-LAG 3.15A 125V (FOR CMA-D1CE)
⚠ F2	1-532-745-11	TIME-LAG 3.15A 125V (FOR CMA-D1)
⚠ F2	1-532-203-00	TIME-LAG 2A 125V (FOR CMA-D1CE)

CN-17 BOARD

No.	Parts No.	Description
	1-613-190-11	PRINTED CIRCUIT BOARD "CN-17"
D1	8-719-820-15	TLG115A

PS-73 BOARD

No.	Parts No.	Description
	A-7513-100-A	MOUNTED CIRCUIT BOARD "PS-73"
C1	1-125-298-00	ELECT (BLOCK) 10000 20% 25V
C2	1-123-644-00	ELECT 22 20% 10V
C3	1-123-621-00	ELECT 10 20% 25V
C4	1-161-013-00	CERAMIC 0.01 10% 25V
C6	1-123-566-00	ELECT 2200 20% 16V
C7	1-161-013-00	CERAMIC 0.01 10% 25V
CN1	1-508-901-00	RECEPTACLE, 3P
	1-509-984-00	PLUG HOUSING 3P
	1-509-982-00	PLUG CONTACT
CN2	1-508-900-00	RECEPTACLE, 2P
	1-509-983-00	PLUG HOUSING 2P
	1-509-982-00	PLUG CONTACT
CN3	1-508-903-00	RECEPTACLE, 5P
CN4	1-508-903-00	RECEPTACLE, 5P
CN5	1-508-904-00	RECEPTACLE, 6P
	1-935-168-11	6P PLUG WITH HARNESS
D1	8-719-102-51	1SZ51
D2	8-719-815-55	1S1555
D3	8-719-815-55	1S1555
IC1	8-759-135-80	μPC358C: NEC
Q1	8-729-177-43	2SD774
R1	1-247-831-00	CARBON 1K 5% 1/6W
R2	1-247-831-00	CARBON 1K 5% 1/6W
R3	1-247-843-00	CARBON 3.3K 5% 1/6W
R4	1-247-831-00	CARBON 1K 5% 1/6W
R5	1-247-799-00	CARBON 47 5% 1/6W
R6	1-247-823-00	CARBON 470 5% 1/6W
R7	1-247-807-00	CARBON 100 5% 1/6W
R8	1-215-445-00	METAL 10K 1% 1/6W
R9	1-215-445-00	METAL 10K 1% 1/6W
R10	1-247-887-00	CARBON 220K 5% 1/6W
RV1	1-224-252-XX	METAL 10K
RV2	1-224-250-XX	METAL 2.2K
RV3	1-224-248-XX	METAL 470

No.	Parts No.	Description
FRAME		
⚠ CN101	1-509-546-00	AC INLET "AC IN"
⚠ CN102	1-526-572-00	VOLTAGE SELECTOR
CN103	1-935-167-12	RECEPTACLE, 4P WITH HARNESS "DC OUT"
CN104	1-935-167-12	RECEPTACLE, 4P WITH HARNESS "DC OUT"
Q101	8-729-316-91	2SA1169
⚠ S1	1-553-515-00	ROCKER "POWER" (FOR CMA-D1)
⚠	1-553-159-00	ROCKER "POWER" (FOR CMA-D1CE)
⚠ T1	1-447-933-11	POWER

No.	Parts No.	Description
PACKING MATERIAL & ACCESSORY		
⚠	1-534-812-00	CORD, POWER (UC)
⚠	1-556-760-11	CORD, POWER (FOR CMA-D1CE)
	2-326-445-01	BAG, POLYETHYLENE
	2-376-412-01	CARTON, INDIVIDUAL
	2-376-417-01	CUSHION (RIGHT)
	2-376-418-01	CUSHION (LEFT)
	2-376-419-01	SPACER

CMA-D1/D1CE (UC,AE,UK)
9-966-790-02

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D.L